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То:	Commissioner of Patents and Trademarks		
From:	Carol A. Schneider, Ph.D., J.D.	Received by:	
. cc:	·	Time:	
No. of Pages: (including cover page)	8	-	
Serial No.: 09 Filed: Octobe For: DISEAS Group Art Uni	er 12, 2001 E PREVENTION BY REACTIVATION	N OF THE THYMUS	
Our Ref: 156	857-0044		
Please see at	tached Request for Corrected Filing	Receipt and Preliminary A	mendment

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Patent Atty Docket No. 156857-0044

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE RECEIVED

In rc the Application of:	) JUN 1 0 2002 ) Group Art Unit: 1646
Richard L. BOYD	Examiner: Not yet assigned TECH CENTER 1600/290
Serial No.: 09/976,598	) )
Filed: October 12, 2001	) )
For: DISEASE PREVENTION BY REACTIVATION OF THE THYMUS	) ) )

## REQUEST FOR CORRECTED FILING RECEIPT

Commissioner for Patents Washington, D.C. 20231

Sir:

Applicant respectfully requests that a corrected Filing Receipt issue for the abovereferenced application. The Filing Receipt issued by the U.S. Patent and Trademark Office does not indicate all of the previously filed applications from which priority is claimed.

The original specification (page 1 enclosed) did not contain all of the prior art information. In that regard, submitted herewith is a Preliminary Amendment which corrects the first paragraph of the specification. A copy of the Filing Receipt with changes noted thereon is also attached.

On the Filing Receipt, below the list of the Applicant(s), please insert as follows:

### CERTIFICATE OF TRANSMISSION

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being transmitted via facsimile ((703) 308-7751) on the date shown below to the Commissioner for Patents, Washington, D.C., 20231.

May 15, 2002

Date of Transmission

Janer Kornbluth

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Patent

Atty Docket No. 156857-0044

Serial No.: 09/976,598

This application is a CIP of 09/965,395	09/26/2001
which is a CIP of 09/755,965	01/05/2001
and a CIP of 09/755,646	01/05/2001
and a CIP of 09/755,983	01/05/2001
and a CIP of 09/758,910	01/10/2001
and said 09/755,965 and 09/755,646 and 09/755,983	
and 09/758,910	
are all CIPS of 09/795,286	10/13/2000
and CIPS of 09/795,302	10/13/2000
and said 09/795,286 AND 09/795,302	
are both CIPS of PCT/AU00/00329	04/17/2000
FOREIGN APPLICATIONS:	
AUSTRALIA PR0745	10/13/2000
PCT/AU00/00329	04/17/2000

Applicants believe that no fee is necessary at this time. However, if any fees are associated with this request, the Commissioner is authorized to charge the necessary amount from our Deposit Account No. 09-0946.

Respectfully Submitted,

Dated: May 15, 2002

**AUSTRALIA PP9778** 

Carol A. Schneider, Ph.D., J.D.

Registration No. 34,923

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04/15/1999

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156857/0044 Patent

# DISEASE PREVENTION BY REACTIVATION OF THE THYMUS

This application is a continuation-in-part of U.S. Serial No. not [0001] filed September 26, 2001, which is a continuation in part of each of U.S. Serial No. 09/755,965 filed January 5, 2001, U.S. Serial No. 09/755,646 filed January 5, 2001, U.S. Serial No. 09/755,983 filed January 5, 2001, and U.S. Serial No. 09/758,910 filed January 10, 2001, each of which is a continuation-in-part of U.S. Serial No. 09/795,286 filed October 13, 2000 which is a continuation-in-part of AU provisional application PR0745 filed October 13, 2000, and of U.S. Serial No. 09/795,302 filed October 13, 2000 which is a continuation-in-part of PCT AU00/00329 filed April 17, 2000, which is a PCT filing of AU provisional application PP9778 filed April 15, 1999, each of which is incorporated herein by reference.

FIELD OF THE INVENTION

[0002] The present disclosure is in the field of disease prevention. In particular this invention is in the field of stimulating a patient's immune system through reactivation of the thymus, and optionally using gene therapy of hematopoietic stem cells (HSC), hematopoietic progenitor cells, epithelial stem cells or bone marrow.

## BACKGROUND OF THE INVENTION

## THE IMMUNE SYSTEM

diseases such as allergies, cancer and autoimmunity.

The major function of the immune system is to distinguish "foreign" antigens [00031 from "self" and respond accordingly to protect the body against infection. In normal immune responses, the sequence of events involves dedicated antigen presenting cells (APC) capturing 20 foreign antigen and processing it into small peptide fragments which are then presented in clefts of major histocompatibility complex (MHC) molecules on the APC surface. The MHC molecules can either be of class I expressed on all nucleated cells (recognized by cytotoxic T cells (Tc)) or of class II expressed primarily by cells of the immune system (recognized by helper T cells (Th)). Th cells recognize the MHC II/peptide complexes on APC and respond; factors 25 released by these cells then promote the activation of either of both Tc cells or the antibody producing B cells which are specific for the particular antigen. The importance of Th cells in virtually all immune responses is best illustrated in HIV/AIDS where their absence through destruction by the virus causes severe immune deficiency eventually leading to death. 30 Inappropriate development of Th (and to a lesser extent Tc) can lead to a variety of other

Page 1 of 2



Novwood Alasey
United States Patent and Trademark Office

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
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APPLICATION NUMBER FILING DATE **GRP ART UNIT** FIL FEE REC'D ATTY.DOCKET.NO DRAWNGS TOT CLAIMS IND CLAIMS 156857-480 34 25 2 09/976,598 10/12/2001 1646 0044

**CONFIRMATION NO. 3291** 

UPDATED FILING RECEIPT

\*OC000000006018168\*

29000 IRELL & MANELLA LLP 1800 AVENUE OF THE STARS SUITE 900 LOS ANGELES, CA 90067

Date Mailed: 05/03/2002

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filling Receipt, please write to the Office of Initial Patent Examination's Filling Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filling Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filling Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

APPLICATION IS A CIP OF 09/965.395

Applicant(s)

THIS APPLICATION IS A CIP OF 09/965.395

OHICH IS A CIP OF 09/755.965

AND A CIP OF 09/755,983

AND A CIP OF 09/758,910

01/05/1001 05/1001 01/05/100/ 01/10/200/

Richard Boyd, Prahran, AUSTRALIA;

AND SAID 09/255,965 AND 09/255,646 AND 09/255,983 AND 09/258,910 ARE ALL CIPS OF 09/295,286 AND CIPS OF 09/295,302

10/13/2000

Domestic Priority data as claimed by applicant

A'

AND SAID 09/795.296 AND 09/795,302 ARE BOTH CIPS OF PCT/AU00/00329

04/17/2000

Foreign Applications

AUSTRALIA PRO745 10/13/2000
PLT/AUDO/DOZZQ 04/17/2000
AUSTRALIA PP9778 04/16/1999

If Required, Foreign Filing License Granted 11/09/2001

Projected Publication Date: 08/15/2002

Non-Publication Request: No

Early Publication Request; No

\*\* SMALL ENTITY \*\*

Title

Disease prevention by reactivation of the thymus

Page 2 of 2

Preliminary Class

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